

FILE 'REGISTRY' ENTERED AT 11:41:14 ON 23 FEB 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

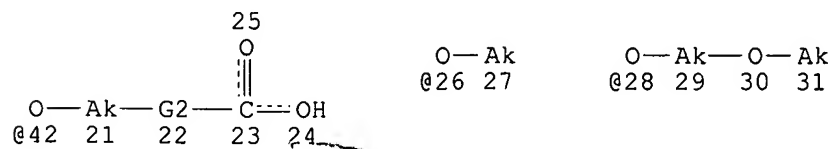
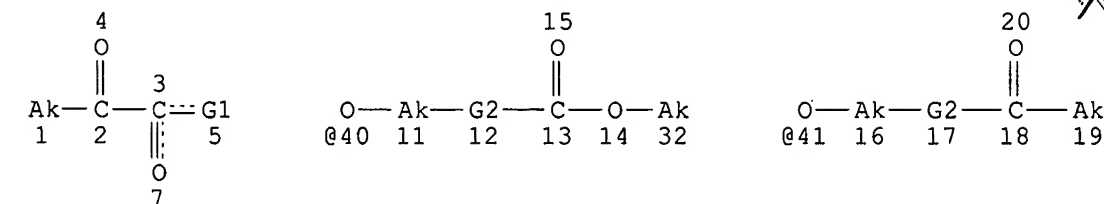
```
STRUCTURE FILE UPDATES:    21 FEB 2006  HIGHEST RN 874882-62-9
DICTIONARY FILE UPDATES:  21 FEB 2006  HIGHEST RN 874882-62-9
```

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

```
*****
*
* The CA roles and document type information have been removed from
* the IDE default display format and the ED field has been added,
* effective March 20, 2005. A new display format, IDERL, is now
* available and contains the CA role and document type information.
*
*****
```

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

L25 SCR 1993 OR 2009 OR 2016 OR 2021 OR 2026 OR 1838 OR 2043 OR 2039 OR 2050 OR 2049 OR 2052 OR 2054
L30 STR



jan delaval - 23 february 2006

NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 31

STEREO ATTRIBUTES: NONE

L32 397 SEA FILE=REGISTRY CSS FUL L30 NOT L25
 L34 11 SEA FILE=REGISTRY ABB=ON PLU=ON L32 AND NC>=2
 L35 386 SEA FILE=REGISTRY ABB=ON PLU=ON L32 NOT L34

=> d his

(FILE 'HOME' ENTERED AT 10:53:41 ON 23 FEB 2006)
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 10:53:52 ON 23 FEB 2006

L1 1 S US20040068006/PN OR (US2003-679040# OR WO2002-US10539 OR US20
 E FINK M/AU
 L2 300 S E3,E9,E49,E50
 E WARREN H/AU
 L3 93 S E3,E16-E18
 L4 4 S E68,E69
 E CRIT/PA,CS
 E CRI T/PA,CS
 E CRIT T/PA,CS
 E CRITIC T/PA,CS
 E CRITICAL T/PA,CS
 L5 7 S E5-E8
 E CARBOXYLIC ACID/CT
 E CARBOXYLIC ACIDS/CT
 L6 11 S E3 (L) 2 KETO
 L7 43 S (CARBOXYLIC(L)ACID#)/CW (L) 2(L)KETO
 L8 43 S CARBOXYLIC ACID?/CT (L) 2(L)KETO
 L9 43 S L6-L8
 L10 2 S 2 KETOALKANOIC ACID
 L11 0 S 2 KETO ALKANOIC ACID
 L12 0 S 2 KETO ALKANOATE
 L13 0 S 2 KETOALKANOATE
 L14 44 S L9,L10
 L15 2 S L1-L5 AND L14
 SEL RN

FILE 'REGISTRY' ENTERED AT 10:59:26 ON 23 FEB 2006

L16 24 S E1-E24
 L17 1 S L16 AND C3H5NO2
 L18 19 S L16 AND 3/ELC.SUB
 L19 1 S L18 AND C3H6O3
 L20 18 S L18 NOT L19
 L21 19 S L17,L20
 L22 5 S L16 NOT L21
 L23 STR
 L24 0 S L23 CSS
 L25 SCR 1993 OR 2009 OR 2016 OR 2021 OR 2026 OR 1838 OR 2043 OR 203
 L26 24 S L23 NOT L25 CSS SAM
 L27 STR L23

L28 25 S L27 NOT L25 CSS SAM
 L29 390 S L27 NOT L25 CSS FUL
 SAV L29 JONES679/A
 L30 STR L27
 L31 25 S L30 NOT L25 CSS SAM
 L32 397 S L30 NOT L25 CSS FUL
 SAV L32 JONES679A/A
 L33 6 S L21 NOT L32
 L34 11 S L32 AND NC>=2
 L35 386 S L32 NOT L34

FILE 'HCAPLUS' ENTERED AT 11:24:55 ON 23 FEB 2006

L36 3111 S L35
 E ACUTE RENAL FAILURE/CT
 E E3+ALL
 L37 1406 S E2
 L38 5876 S ACUTE(L) (KIDNEY OR RENAL OR NEPHR?) (L) FAIL?
 L39 1 S L14 AND L37,L38
 L40 6 S L36 AND L37,L38
 L41 6 S L39,L40
 L42 25 S L1-L5 AND L36
 L43 1 S L42 AND L41
 L44 6 S L41,L43
 L45 396 S L33/D
 L46 2 S L45 AND L37,L38
 L47 5 S L1-L5 AND L45
 L48 7 S L44,L46
 L49 4 S L47 NOT L48
 L50 11 S L48,L49
 E KIDNEY/CT
 L51 16349 S E39-E41
 L52 181892 S E3-E139
 L53 28046 S E190
 L54 36799 S E191-E216
 L55 15163 S E217-E264
 L56 17394 S E265-E293
 L57 23459 S E294
 L58 44627 S E295-E307,E310-E312
 L59 2909 S E313-E316
 E E3+ALL
 L60 182004 S E5+OLD,NT
 E E11+ALL
 L61 69413 S E10+OLD,NT
 L62 1 S L14 AND L51-L61
 L63 26 S L36 AND L51-L61
 L64 31 S L50,L62,L63
 L65 7 S L45 AND L51-L61
 L66 36 S L64,L65
 L67 20 S L66 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
 L68 16 S L66 NOT L67
 L69 7 S L67 AND (ACUTE OR CHRONIC)
 SEL AN 1 6 7
 L70 3 S L69 AND E1-E6

FILE 'REGISTRY' ENTERED AT 11:41:14 ON 23 FEB 2006

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 11:41:25 ON 23 FEB 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 Feb 2006 VOL 144 ISS 9
FILE LAST UPDATED: 22 Feb 2006 (20060222/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 170 all hitstr tot

L70 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:293397 HCAPLUS
DN 140:281392
ED Entered STN: 09 Apr 2004
TI Method for preventing acute renal failure
IN Fink, Mitchell P.; Warren, Howland Shaw
PA Critical Therapeutics, Inc., USA
SO U.S. Pat. Appl. Publ., 9 pp., Cont.-in-part of Appl. No. PCT/US02/10539.
CODEN: USXXCO

DT Patent
LA English
IC ICM A61K0031-22
ICS A61K0031-16
INCL 514546000; 514625000
CC 1-8 (Pharmacology)
Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004068006	A1	20040408	US 2003-679040	20031003 <--
	CA 2441542	AA	20021017	CA 2002-2441542	20020403 <--
	WO 2002081020	A2	20021017	WO 2002-US10539	20020403 <--
	WO 2002081020	A3	20030109		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1377339	A2	20040107	EP 2002-723759		20020403 <--
R:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR				
JP 2004527529	T2	20040909	JP 2002-579058		20020403 <--

applicant's priority data

PRAI US 2001-281363P P 20010404 <--
 WO 2002-US10539 A2 20020403 <--

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2004068006	ICM	A61K0031-22	
	ICS	A61K0031-16	
	INCL	514546000; 514625000	
	IPCI	A61K0031-22 [ICM,7]; A61K0031-16 [ICS,7]	
	IPCR	A61K0031-16 [I,A]; A61K0031-16 [I,C]; A61K0031-185 [I,C]; A61K0031-19 [I,A]; A61K0031-21 [I,C]; A61K0031-22 [I,A]	
	NCL	514/546.000	
WO 2002081020	ECLA	A61K031/16; A61K031/19; A61K031/22	<--
	IPCI	A61K0031-16 [ICM,7]; A61K0019-22 [ICS,7]	
	IPCR	A61K0031-16 [I,A]; A61K0031-16 [I,C]; A61K0031-185 [I,C]; A61K0031-19 [I,A]	
EP 1377339	ECLA	A61K031/16; A61K031/16+M; A61K031/19; A61K031/19+M	<--
	IPCI	A61K0031-16	<--
JP 2004527529	IPCI	A61K0031-19 [ICM,7]; A61P0013-12 [ICS,7]	
	FTERM	4C206/CB12; 4C206/DA02; 4C206/DA03; 4C206/DB03; 4C206/MA04; 4C206/MA37; 4C206/MA44; 4C206/MA55; 4C206/MA72; 4C206/MA75; 4C206/NA07; 4C206/NA14; 4C206/ZA81	<--

OS MARPAT 140:281392

AB Disclosed is a method of treating **acute renal failure** in a subject. The method comprises the step of administering to the subject an effective amount of a composition comprising a **2-ketoalkanoic acid**, a pharmaceutically acceptable salt of a **2-ketoalkanoic acid**, an ester of a **2-ketoalkanoic acid**, or an amide of a **2-ketoalkanoic acid** (Markush structures are presented). Preferably, the composition comprises an enolization agent and an alkyl, aralkyl, alkoxyalkyl or carboxyalkyl ester of a **2-ketoalkanoic acid** dissolved in a pharmaceutically acceptable vehicle.

ST enolization keto alkanoic acid **acute renal failure**

IT **Carboxylic acids, biological studies**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (2-keto; method for preventing **acute renal failure**)

IT Enolization

(agents; method for preventing **acute renal failure**)

IT **Carboxylic acids, biological studies**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (alkyl esters, 2-keto; method for preventing **acute renal failure**)

IT Imaging

(contrast; method for preventing **acute renal failure**)

IT **Kidney, disease**

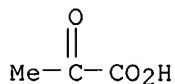
(**failure, acute**; method for preventing **acute renal failure**)

IT Heart, disease

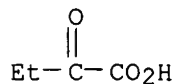
Liver, disease

(**failure**; method for preventing **acute renal failure**)

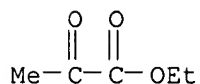
- failure)**
- IT Shock (circulatory collapse)
(hemorrhagic; method for preventing **acute renal failure**)
- IT Diabetes mellitus
Drug delivery systems
Hypotension
Kidney
Nephrotoxicity
Sepsis
Surgery
(method for preventing **acute renal failure**)
- IT Esters, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ribosyl; method for preventing **acute renal failure**)
- IT 96-26-4D, Dihydroxyacetone, ester **127-17-3D**, esters **600-18-0D**, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of **617-35-6**, Ethyl pyruvate **631-66-3**, Pyruvamide **759-05-7D**, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of **816-66-0D**, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of **1821-02-9D**, 2-Ketopentanoic acid, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of **2492-75-3D**, 2-Oxo-Hexanoic acid, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for preventing **acute renal failure**)
- IT **127-17-3D**, esters **600-18-0D**, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of **617-35-6**, Ethyl pyruvate **631-66-3**, Pyruvamide **759-05-7D**, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of **816-66-0D**, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of **1821-02-9D**, 2-Ketopentanoic acid, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of **2492-75-3D**, 2-Oxo-Hexanoic acid, alkyl, aralkyl, alkoxyalkyl, or carboxyalkyl ester of
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for preventing **acute renal failure**)
- RN **127-17-3** HCAPLUS
CN Propanoic acid, 2-oxo- (9CI) (CA INDEX NAME)



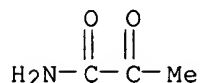
- RN **600-18-0** HCAPLUS
CN Butanoic acid, 2-oxo- (9CI) (CA INDEX NAME)



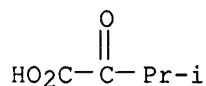
RN 617-35-6 HCAPLUS
CN Propanoic acid, 2-oxo-, ethyl ester (9CI) (CA INDEX NAME)



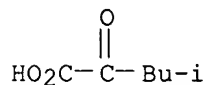
RN 631-66-3 HCAPLUS
CN Propanamide, 2-oxo- (9CI) (CA INDEX NAME)



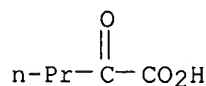
RN 759-05-7 HCAPLUS
CN Butanoic acid, 3-methyl-2-oxo- (9CI) (CA INDEX NAME)



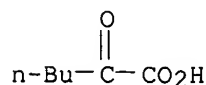
RN 816-66-0 HCAPLUS
CN Pentanoic acid, 4-methyl-2-oxo- (9CI) (CA INDEX NAME)



RN 1821-02-9 HCAPLUS
CN Pentanoic acid, 2-oxo- (9CI) (CA INDEX NAME)



RN 2492-75-3 HCAPLUS
CN Hexanoic acid, 2-oxo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L70 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1992:440446 HCAPLUS
DN 117:40446
ED Entered STN: 08 Aug 1992
TI Pyruvate solutions to counteract **acute renal**

IN ~~failure~~
 PA ~~Nath, Karl A.~~
 PA University of Minnesota, USA
 SO PCT Int. Appl., 17 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A01N0037-00
 CC 1-8 (Pharmacology)
 Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9204826	A1	19920402	WO 1991-US6471	19910909 <--
	W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MN, MW, NL, NO, PL, RO, SD, SE, SU				
	RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG				
	AU 9185394	A1	19920415	AU 1991-85394	19910909 <--
	US 5210098	A	19930511	US 1992-841879	19920226 <--
PRAI	US 1990-585984	A	19900921	<--	
	WO 1991-US6471	A	19910909	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9204826	ICM	A01N0037-00
	IPCI	A01N0037-00 [ICM,5]
	IPCR	A01N0001-02 [I,A]; A01N0001-02 [I,C]; A61K0031-185 [I,C]; A61K0031-19 [I,A]
AU 9185394	IPCI	A01N0037-00 [ICM,5]
US 5210098	IPCI	A61K0031-18 [ICM,5]; A61K0031-12 [ICS,5]
	IPCR	A01N0001-02 [I,A]; A01N0001-02 [I,C]; A61K0031-185 [I,C]; A61K0031-19 [I,A]
	NCL	514/557.000; 514/675.000

AB Pyruvate salts are used to treat acute kidney failure. Sodium pyruvate prevented the rise in urinary protein excretory rates induced by H₂O₂ in rats. Systemic administration of pyruvate prior to and during the induction of ischemia-reperfusion injury of the kidney leads to improvement of renal function as measured by glomerular filtration rate and renal blood flow.

ST pyruvate kidney failure

IT **Kidney, disease**

(failure, treatment of, with pyruvate salts)

IT 113-24-6, Sodium pyruvate 127-17-3D, Pyruvic acid, salts

RL: BIOL (Biological study)

(kidney failure treatment with)

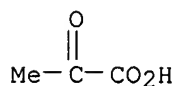
IT 127-17-3D, Pyruvic acid, salts

RL: BIOL (Biological study)

(kidney failure treatment with)

RN 127-17-3 HCAPLUS

CN Propanoic acid, 2-oxo- (9CI) (CA INDEX NAME)



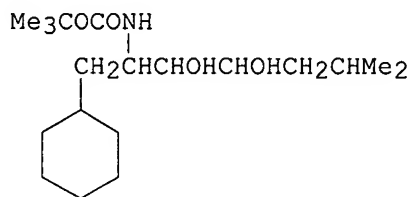
AN 1992:84190 HCAPLUS
 DN 116:84190
 ED Entered STN: 06 Mar 1992
 TI Preparation of peptide derivatives as renin inhibitors for treating renal disease
 IN Kleinert, Hollis
 PA Abbott Laboratories, USA
 SO Eur. Pat. Appl., 46 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM A61K0037-02
 ICS A61K0037-64; C07K0005-00; C07K0005-06; A61K0031-445; A61K0031-535
 CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 1
 FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 440102	A1	19910807	EP 1991-100958	19910125 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	IL 96942	A1	19950124	IL 1991-96942	19910114 <--
	AU 9169878	A1	19910801	AU 1991-69878	19910122 <--
	AU 632895	B2	19930114		
	CA 2035163	AA	19910801	CA 1991-2035163	19910129 <--
	JP 06107562	A2	19940419	JP 1991-211684	19910131 <--
	US 5178877	A	19930112	US 1991-737093	19910729 <--
	US 5182266	A	19930126	US 1992-836560	19920214 <--
	WO 9302667	A1	19930218	WO 1992-US5923	19920715 <--
	W: AU, CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	AU 9223924	A1	19930302	AU 1992-23924	19920715 <--
	US 5276031	A	19940104	US 1992-967094	19921026 <--
PRAI	US 1990-472937	A	19900131	<--	
	US 1991-632595	A	19910104	<--	
	US 1991-680811	A2	19910409	<--	
	US 1991-683663	A2	19910415	<--	
	US 1991-737093	A	19910729	<--	
	US 1992-836560	A3	19920214	<--	
	WO 1992-US5923	A	19920715	<--	

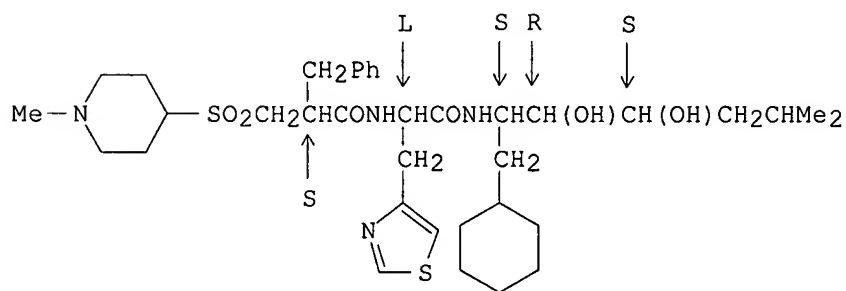
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 440102	ICM	A61K0037-02
	ICS	A61K0037-64; C07K0005-00; C07K0005-06; A61K0031-445; A61K0031-535
	IPCI	A61K0037-02 [ICM,5]; A61K0037-64 [ICS,5]; C07K0005-00 [ICS,5]; C07K0005-06 [ICS,5]; A61K0031-445 [ICS,5]; A61K0031-535 [ICS,5] <--
IL 96942	IPCI	A61K0037-02 [ICM,5]; C07C0273-08 [ICA,5]; C07K0005-06 [ICS,5] <--
AU 9169878	IPCI	A61K0037-64 [ICM,5]; A61K0031-445 [ICS,5]; A61K0031-42 [ICS,5]; A61K0031-195 [ICS,5]; A61K0031-215 [ICS,5]; A61K0031-08 [ICS,5]; A61K0031-185 [ICS,5]; A61K0031-16 [ICS,5]; A61K0031-425 [ICS,5] <--
CA 2035163	IPCI	A61K0037-64 [ICM,5] <--
JP 06107562	IPCI	A61K0045-00 [ICM,5]; A61K0031-445 [ICS,5]; C07D0211-76 [ICS,5]; C07D0277-593 [ICS,5]; C07D0417-12 [ICS,5]; C07K0005-06 [ICS,5]; C07K0005-08 [ICS,5] <--
US 5178877	IPCI	A61K0009-48 [ICM,5]; A61K0009-66 [ICS,5]; A61K0037-64 [ICS,5]

IPCR A61K0031-495 [I,A]; A61K0031-495 [I,C]; A61K0031-535 [I,A]; A61K0031-535 [I,C]; A61K0038-00 [N,A]; A61K0038-00 [N,C]; A61K0038-55 [I,A]; A61K0038-55 [I,C]; C07D0211-00 [I,C]; C07D0211-46 [I,A]; C07D0211-54 [I,A]; C07D0277-00 [I,C]; C07D0277-28 [I,A]; C07D0295-00 [I,C]; C07D0295-26 [I,A]; C07K0005-00 [I,C]; C07K0005-065 [I,A]
 NCL 424/456.000; 424/455.000; 514/019.000; 514/962.000; 530/800.000 <--
 US 5182266 IPCI A61K0037-00 [ICM,5]
 IPCR A61K0038-55 [I,A]; A61K0038-55 [I,C]; C07D0211-00 [I,C]; C07D0211-46 [I,A]; C07D0211-54 [I,A]; C07K0005-00 [I,C]; C07K0005-065 [I,A]
 NCL 514/018.000 <--
 WO 9302667 IPCI A61K0009-48 [ICM,5]
 IPCR A61K0009-48 [I,A]; A61K0009-48 [I,C]; A61K0031-496 [I,A]; A61K0031-496 [I,C]; A61K0031-5375 [I,C]; A61K0031-5377 [I,A] <--
 AU 9223924 IPCI A61K0009-48 [ICM,5] <--
 US 5276031 IPCI A61K0031-535 [ICM,5]
 IPCR A61K0038-55 [I,A]; A61K0038-55 [I,C]; C07D0211-00 [I,C]; C07D0211-46 [I,A]; C07D0211-54 [I,A]; C07K0005-00 [I,C]; C07K0005-065 [I,A]
 NCL 514/237.200; 514/235.500 <--
 OS MARPAT 116:84190
 GI

AR¹CHWUCHR³CONHCHR⁶CR⁴R⁵CR⁷R⁸R⁹ I

II

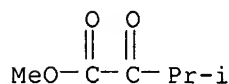


III

AB Use of a renin-inhibiting peptide for manufacturing a medicament for preventing, treating, inhibitory, or reversing renal dysfunction is described (no data). Preferred peptides I [A = H, C1-7 alkyl, aralkyl, etc.; W = CO, CHO; U = CH₂; NR₂ and W = CHO when U = CH₂; R₁ = C1-7 alkyl, cycloalkylmethyl, (substituted) benzyl, naphthylmethyl, etc.; R₂ = H, C1-7 alkyl; R₃ = C1-7 alkyl, C1-7 alkenyl, CH₂Ph, heterocyclymethyl, etc.; R₄, R₉ = OH, NH₂; R₅ = vinyl, CHO, HOCH₂, H; R₆ = C1-7 alkyl,

cycloalkylmethyl, CH₂Ph; R₇ = H, C₁-7 alkyl, vinyl, aralkyl, etc.; R₈ = H, C₁-7 alkyl] were prepared Thus AcNHC(CO₂Et)₂CH₂COCH₂Br (preparation given) was cyclocondensed with thioformamide and the resulting product was converted in 4 steps to N-tert-butoxycarbonyl-3-(4-thiazolyl)-L-alanine. This was coupled with (2S,3R,4S)-II in the presence of HOBt and EtN:C:N(CH₂)₃NMe₂ and the resulting product was deprotected and then coupled with (2S)-2-benzyl-3-(1-methylpiperidin-4-ylsulfonyl)propionic acid (preparation given) to give renin inhibitor III.

- ST **renal** dysfunction treatment peptide prepn; renin inhibitor peptide prepn; **chronic renal failure** treatment peptide; **acute renal failure** treatment peptide
- IT **Kidney, disease**
(**failure, acute**, treatment of, peptides for)
- IT **Kidney, disease**
(**failure, chronic**, treatment of, peptides for)
- IT 9015-94-5, Renin, biological studies
RL: USES (Uses)
(inhibitors, peptides as)
- IT 17193-39-4P 18020-59-2P 27527-05-5P 42294-32-6P 103547-97-3P
112190-42-8P 114457-57-7P 119434-75-2P 122226-01-1P 122292-90-4P
122292-91-5P 123381-13-5P 129921-91-1P 129921-93-3P 130316-86-8P
130316-92-6P 130336-10-6P 131116-54-6P 131349-19-4P 134038-94-1P
134038-95-2P 135865-22-4P 135865-23-5P 135934-36-0P 135967-46-3P
135967-48-5P 135967-49-6P 135967-50-9P 136010-39-4P 136010-40-7P
136010-41-8P 136010-42-9P 136010-43-0P 136086-11-8P 138679-12-6P
138679-13-7P 138679-14-8P 138679-15-9P 138679-16-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for renin-inhibiting peptides)
- IT 130316-95-9P 138679-11-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of, as renin inhibitor)
- IT 63-91-2, Phenylalanine, reactions 67-56-1, Methanol, reactions
76-83-5, Triphenylmethyl chloride 96-33-3 100-52-7, Benzaldehyde, reactions
109-01-3, N-Methylpiperazine 115-08-2, Thioformamide
116-11-0 123-00-2, 4-(3-Aminopropyl)morpholine 513-31-5,
2,3-Dibromopropene 756-79-6, Dimethyl methylphosphonate 1068-90-2,
Diethyl acetamidomalonate 1826-67-1, Vinylmagnesium bromide
3952-67-8, Methyl 3-methyl-2-oxobutyrate 6066-82-6,
N-Hydroxysuccinimide 6160-65-2 20312-36-1, L-3-Phenyl lactic acid
34619-03-9 91423-83-5, D-2-Bromohexanoic acid 98105-41-0 104882-10-2
130316-85-7, 4-(Methoxymethoxy)piperidine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of renin-inhibiting peptides)
- IT **3952-67-8**, Methyl 3-methyl-2-oxobutyrate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of renin-inhibiting peptides)
- RN 3952-67-8 HCAPLUS
- CN Butanoic acid, 3-methyl-2-oxo-, methyl ester (9CI) (CA INDEX NAME)



=> => fil reg

FILE 'REGISTRY' ENTERED AT 12:16:25 ON 23.FEB 2006
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
 provided by InfoChem.

STRUCTURE FILE UPDATES: 21 FEB 2006 HIGHEST RN 874882-62-9
 DICTIONARY FILE UPDATES: 21 FEB 2006 HIGHEST RN 874882-62-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
*****
```

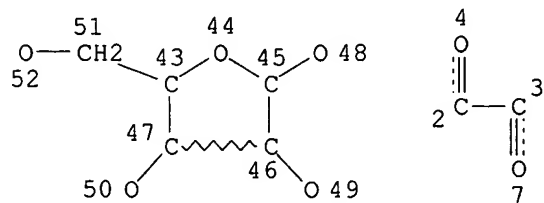
Structure search iteration limits have been increased. See HELP SLIMITS
 for details.

REGISTRY includes numerically searchable data for experimental and
 predicted properties as well as tags indicating availability of
 experimental property data in the original document. For information
 on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d sta que 174

L71 STR



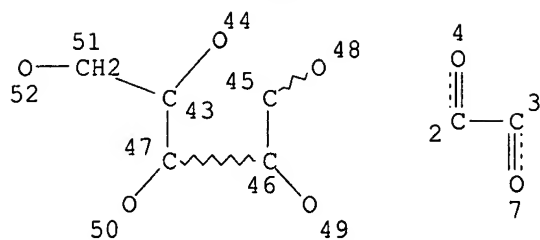
NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC 43
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L73 7 SEA FILE=REGISTRY SSS FUL L71
 L74 2 SEA FILE=REGISTRY ABB=ON PLU=ON L73 AND 1/NR

=> d sta que 181
L75 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L77 407 SEA FILE=REGISTRY SSS FUL L75
L78 287 SEA FILE=REGISTRY ABB=ON PLU=ON L77 AND NR>=1
L79 120 SEA FILE=REGISTRY ABB=ON PLU=ON L77 NOT L78
L80 58 SEA FILE=REGISTRY ABB=ON PLU=ON L79 AND 3/ELC.SUB
L81 49 SEA FILE=REGISTRY ABB=ON PLU=ON L80 NOT ((D OR T)/ELS OR
11C# OR 13C# OR 14C# OR C11# OR C13# OR C14# OR 18O# OR 17O#
OR LABELED OR ION)

=> d his 183-

(FILE 'REGISTRY' ENTERED AT 12:03:40 ON 23 FEB 2006)
SAV L82 JONES679D/A

FILE 'HCAPLUS' ENTERED AT 12:11:00 ON 23 FEB 2006

L83 627 S L82
L84 0 S L83 AND L37,L38
L85 1 S L83 AND L51-L61
L86 10 S L83 (L) THU/RL
L87 13 S L83 (L) (DMA OR PAC OR PKT OR BAC)/RL
L88 16 S L86,L87 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
L89 0 S L83 AND L1-L5
L90 0 S L88 AND (?KIDNEY? OR ?RENAL? OR ?NEPHR?)
L91 0 S L88 AND L74
L92 1 S L74

FILE 'USPATFULL, USPAT2' ENTERED AT 12:14:11 ON 23 FEB 2006

L93 0 S L74
L94 32 S L81
L95 30 S L94 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
L96 14 S L94 AND A61K/IPC
L97 15 S L94 AND (424 OR 514)/NCLM,NCLS
L98 2 S L97 NOT L96
L99 1 S L94 AND (?KIDNEY? OR ?RENAL? OR ?NEPHR?)
L100 0 S L94 AND (KIDNEY? OR RENAL? OR NEPHR?)/CT

FILE 'REGISTRY' ENTERED AT 12:16:25 ON 23 FEB 2006

=> => fil hcaplus
FILE 'HCAPLUS' ENTERED AT 12:17:24 ON 23 FEB 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 Feb 2006 VOL 144 ISS 9
FILE LAST UPDATED: 22 Feb 2006 (20060222/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr 185

L85 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1998:757416 HCAPLUS
DN 130:92293
ED Entered STN: 03 Dec 1998
TI Unconventional antigen retrieval for carbohydrate and protein antigens
AU Guhl, Bruno; Ziak, Martin; Roth, Jurgen
CS Division of Cell and Molecular Pathology, Department of Pathology, University of Zurich, Zurich, CH-8091, Switz.
SO Histochemistry and Cell Biology (1998), 110(6), 603-611
CODEN: HCBIFP; ISSN: 0948-6143
PB Springer-Verlag
DT Journal
LA English
CC 9-4 (Biochemical Methods)
Section cross-reference(s): 13
AB Aldehyde fixation of tissues often adversely affects the reactivity of cellular proteins with antibodies. A most commonly used retrieval technique in immunohistochem. is high-temperature microwave heating of sections from formaldehyde-fixed and paraffin-embedded tissues. Here we report that pretreatment of paraffin and ultrathin cryosections with N-glycanase F to remove N-glycosidically linked oligosaccharides can result in a dramatic increase in specificity and intensity of immunogold labeling for sugar moieties present on O-glycosidically linked oligosaccharides. This is demonstrated in the immunolocalization of poly α 2,8 KDN (KDN, 2-keto-3- deoxy-D-glycero-D-galacto-nononic acid) of megalin in rat kidney. The mechanism of this retrieval procedure is most probably based on the elimination of sterical hindrance by large N-glycosidically linked oligosaccharides. Furthermore, we demonstrate that exposure of ultrathin cryosections to acidic conditions (pH 5.5) at ambient temperature prior to immunogold labeling can result in an increased labeling intensity. This effect was observed for megalin immunoreactive sites in proximal tubular epithelia of rat kidney. It is proposed that the mechanism of this

retrieval procedure is based on the depolymn. of methylen and polymethylen bridges introduced by formaldehyde in the acidic milieu.

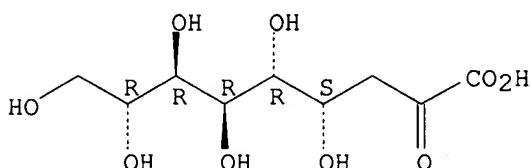
- ST immunoelectron microscopy magalin KDN kidney staining N glycanase
IT Antigens
RL: ANT (Analyte); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(Heymann's; unconventional antigen retrieval for carbohydrate and protein antigens)
- IT Oligosaccharides, processes
RL: REM (Removal or disposal); PROC (Process)
(N-linked; unconventional antigen retrieval for carbohydrate and protein antigens)
- IT Oligosaccharides, analysis
RL: ANT (Analyte); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(O-linked; unconventional antigen retrieval for carbohydrate and protein antigens)
- IT Immunoassay
(immunoelectron microscopy; unconventional antigen retrieval for carbohydrate and protein antigens)
- IT Immunoassay
(immunogold-silver staining; unconventional antigen retrieval for carbohydrate and protein antigens)
- IT Immunoassay
(immunohistochem.; unconventional antigen retrieval for carbohydrate and protein antigens)
- IT **Kidney**
Rat
Sample preparation
(unconventional antigen retrieval for carbohydrate and protein antigens)
- IT 83534-39-8, Amidase, peptide-N4-(N-acetyl- β -glucosaminyl)asparagine
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)
(F; unconventional antigen retrieval for carbohydrate and protein antigens)
- IT **22594-61-2**, D-glycero-D-galacto-2-Nonulosonic acid, 3-deoxy-
RL: ANT (Analyte); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(unconventional antigen retrieval for carbohydrate and protein antigens)

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Abbate, M; Eur J Cell Biol 1993, V61, P139 HCAPLUS
- (2) Baschong, W; Eur J Cell Biol 1983, V32, P1 HCAPLUS
- (3) Battifora, H; J Histochem Cytochem 1986, V34, P1095 HCAPLUS
- (4) Brandtzaeg, P; Techniques in immunocytochemistry 1982, V1, P2
- (5) Brockhausen, I; Glycoproteins 1995, V29a, P201 HCAPLUS
- (6) Brown, D; Histochem Cell Biol 1996, V105, P261 HCAPLUS
- (7) Christensen, E; Eur J Cell Biol 1995, V66, P349 HCAPLUS
- (8) Gerloff, T; J Biol Chem 1998, V273, P10046 HCAPLUS
- (9) Griffiths, G; Fine structure immunocytochemistry 1993
- (10) Hakomori, S; Glycoproteins and disease 1996, V30, P243 HCAPLUS
- (11) Harrach, B; Arteriosclerosis 1990, V10, P564 HCAPLUS
- (12) Herz, G; J Biol Chem 1991, V266, P21232
- (13) Huang, S; Lab Invest 1976, V35, P383 MEDLINE

- (14) Johnson, T; Eur J Cell Biol 1987, V45, P160 HCAPLUS
 (15) Johnson, T; J Electron Microsc Techn.1985, V2, P129 HCAPLUS
 (16) Kanamori, A; Histochemistry 1994, V101, P333 HCAPLUS
 (17) Kerjaschki, D; J Cell Biol 1984, V98, P1505 HCAPLUS
 (18) Laemmli, U; Nature (London) 1970, V227, P680 HCAPLUS
 (19) Larsson, L; Immunocytochemistry:theory and practice 1988
 (20) Lucocq, J; Eur J Cell Biol 1986, V42, P332 HCAPLUS
 (21) Puchtler, H; Histochemistry 1985, V82, P201 MEDLINE
 (22) Qu, B; Proc Natl Acad Sci USA 1996, V93, P8995 HCAPLUS
 (23) Richards, F; J Mol Biol 1968, V37, P231 HCAPLUS
 (24) Ris, H; Methods Cell Biol 1978, VXXVIII, P229
 (25) Roth, J; Histochemistry 1992, V98, P229 HCAPLUS
 (26) Roth, J; Techniques in diagnostic pathology 1992, V3, P2
 (27) Shi, S; J Histochem Cytochem 1997, V45, P327 HCAPLUS
 (28) Tokuyasu, K; Histochem J 1980, V12, P381 HCAPLUS
 (29) Tokuyasu, K; J Ultrastruct Res 1978, V63, P287 MEDLINE
 (30) Tome, D; J Chim Phys 1982, V79, P361 HCAPLUS
 (31) Towbin, H; Proc Natl Acad Sci USA 1979, V76, P4350 HCAPLUS
 (32) Vliegenthart, J; Glycoproteins 1995, V29a, P13 HCAPLUS
 (33) Werner, M; Histochem Cell Biol 1996, V105, P253 HCAPLUS
 (34) Ziak, M; J Am Soc Nephrol (in press) 1998
 (35) Ziak, M; Mol Biol Cell 1996, V7, P596a
 (36) Ziak, M; Proc Natl Acad Sci USA 1996, V93, P2759 HCAPLUS
 (37) Zuber, C; Methods in molecular biology series 1998, P159 HCAPLUS
 IT 22594-61-2, D-glycero-D-galacto-2-Nonulosonic acid, 3-deoxy-
 RL: ANT (Analyte); BOC (Biological occurrence); BPR (Biological process);
 BSU (Biological study, unclassified); ANST (Analytical study); BIOL
 (Biological study); OCCU (Occurrence); PROC (Process)
 (unconventional antigen retrieval for carbohydrate and protein
 antigens)
 RN 22594-61-2 HCAPLUS
 CN D-glycero-D-galacto-2-Nonulosonic acid, 3-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d his

(FILE 'HOME' ENTERED AT 10:53:41 ON 23 FEB 2006)
 SET COST OFF

FILE 'HAPLUS' ENTERED AT 10:53:52 ON 23 FEB 2006

L1 1 S US20040068006/PN OR (US2003-679040# OR WO2002-US10539 OR US20
 E FINK M/AU
 L2 300 S E3,E9,E49,E50
 E WARREN H/AU
 L3 93 S E3,E16-E18
 L4 4 S E68,E69
 E CRIT/PA,CS
 E CRI T/PA,CS
 E CRIT T/PA,CS

jan delaval - 23 february 2006

L5 E CRITIC T/PA,CS
 E CRITICAL T/PA,CS
 7 S E5-E8
 E CARBOXYLIC ACID/CT
 E CARBOXYLIC ACIDS/CT
 L6 11 S E3 (L) 2 KETO
 L7 43 S (CARBOXYLIC(L)ACID#)/CW (L) 2(L)KETO
 L8 43 S CARBOXYLIC ACID?/CT (L) 2(L)KETO
 L9 43 S L6-L8
 L10 2 S 2 KETOALKANOIC ACID
 L11 0 S 2 KETO ALKANOIC ACID
 L12 0 S 2 KETO ALKANOATE
 L13 0 S 2 KETOALKANOATE
 L14 44 S L9,L10
 L15 2 S L1-L5 AND L14
 SEL RN

FILE 'REGISTRY' ENTERED AT 10:59:26 ON 23 FEB 2006

L16 24 S E1-E24
 L17 1 S L16 AND C3H5NO2
 L18 19 S L16 AND 3/ELC.SUB
 L19 1 S L18 AND C3H6O3
 L20 18 S L18 NOT L19
 L21 19 S L17,L20
 L22 5 S L16 NOT L21
 L23 STR
 L24 0 S L23 CSS
 L25 SCR 1993 OR 2009 OR 2016 OR 2021 OR 2026 OR 1838 OR 2043 OR 203
 L26 24 S L23 NOT L25 CSS SAM
 L27 STR L23
 L28 25 S L27 NOT L25 CSS SAM
 L29 390 S L27 NOT L25 CSS FUL
 SAV L29 JONES679/A
 L30 STR L27
 L31 25 S L30 NOT L25 CSS SAM
 L32 397 S L30 NOT L25 CSS FUL
 SAV L32 JONES679A/A
 L33 6 S L21 NOT L32
 L34 11 S L32 AND NC>=2
 L35 386 S L32 NOT L34

FILE 'HCAPLUS' ENTERED AT 11:24:55 ON 23 FEB 2006

L36 3111 S L35
 E ACUTE RENAL FAILURE/CT
 E E3+ALL
 L37 1406 S E2
 L38 5876 S ACUTE(L) (KIDNEY OR RENAL OR NEPHR?) (L) FAIL?
 L39 1 S L14 AND L37,L38
 L40 6 S L36 AND L37,L38
 L41 6 S L39,L40
 L42 25 S L1-L5 AND L36
 L43 1 S L42 AND L41
 L44 6 S L41,L43
 L45 396 S L33/D
 L46 2 S L45 AND L37,L38
 L47 5 S L1-L5 AND L45
 L48 7 S L44,L46
 L49 4 S L47 NOT L48
 L50 11 S L48,L49
 E KIDNEY/CT

L51 16349 S E39-E41
 L52 181892 S E3-E139
 L53 28046 S E190
 L54 36799 S E191-E216
 L55 15163 S E217-E264
 L56 17394 S E265-E293
 L57 23459 S E294
 L58 44627 S E295-E307,E310-E312
 L59 2909 S E313-E316
 E E3+ALL
 L60 182004 S E5+OLD,NT
 E E11+ALL
 L61 69413 S E10+OLD,NT
 L62 1 S L14 AND L51-L61
 L63 26 S L36 AND L51-L61
 L64 31 S L50,L62,L63
 L65 7 S L45 AND L51-L61
 L66 36 S L64,L65
 L67 20 S L66 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
 L68 16 S L66 NOT L67
 L69 7 S L67 AND (ACUTE OR CHRONIC)
 SEL AN 1 6 7
 L70 3 S L69 AND E1-E6

FILE 'REGISTRY' ENTERED AT 11:41:14 ON 23 FEB 2006

FILE 'HCAPLUS' ENTERED AT 11:41:25 ON 23 FEB 2006

FILE 'REGISTRY' ENTERED AT 12:03:40 ON 23 FEB 2006

L71 STR L30
 L72 2 S L71
 L73 7 S L72 FUL
 SAV L73 JONES679B/A
 L74 2 S L73 AND 1/NR
 L75 STR L71
 L76 10 S L75
 L77 407 S L75 FUL
 SAV L77 JONES679C/A
 L78 287 S L77 AND NR>=1
 L79 120 S L77 NOT L78
 L80 58 S L79 AND 3/ELC.SUB
 L81 49 S L80 NOT ((D OR T)/ELS OR 11C# OR 13C# OR 14C# OR C11# OR C13#
 L82 51 S L74,L81
 SAV L82 JONES679D/A

FILE 'HCAPLUS' ENTERED AT 12:11:00 ON 23 FEB 2006

L83 627 S L82
 L84 0 S L83 AND L37,L38
 L85 1 S L83 AND L51-L61
 L86 10 S L83 (L) THU/RL
 L87 13 S L83 (L) (DMA OR PAC OR PKT OR BAC)/RL
 L88 16 S L86,L87 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
 L89 0 S L83 AND L1-L5
 L90 0 S L88 AND (?KIDNEY? OR ?RENAL? OR ?NEPHR?)
 L91 0 S L88 AND L74
 L92 1 S L74

FILE 'USPATFULL, USPAT2' ENTERED AT 12:14:11 ON 23 FEB 2006

L93 0 S L74
 L94 32 S L81

L95 30 S L94 AND (PY<=2001 OR PRY<=2001 OR AY<=2001)
L96 14 S L94 AND A61K/IPC
L97 15 S L94 AND (424 OR 514)/NCLM,NCLS
L98 2 S L97 NOT L96
L99 1 S L94 AND (?KIDNEY? OR ?RENAL? OR ?NEPHR?)
L100 0 S L94 AND (KIDNEY? OR RENAL? OR NEPHR?)/CT

FILE 'REGISTRY' ENTERED AT 12:16:25 ON 23 FEB 2006

FILE 'HCAPLUS' ENTERED AT 12:17:10 ON 23 FEB 2006

FILE 'HCAPLUS' ENTERED AT 12:17:24 ON 23 FEB 2006

=>